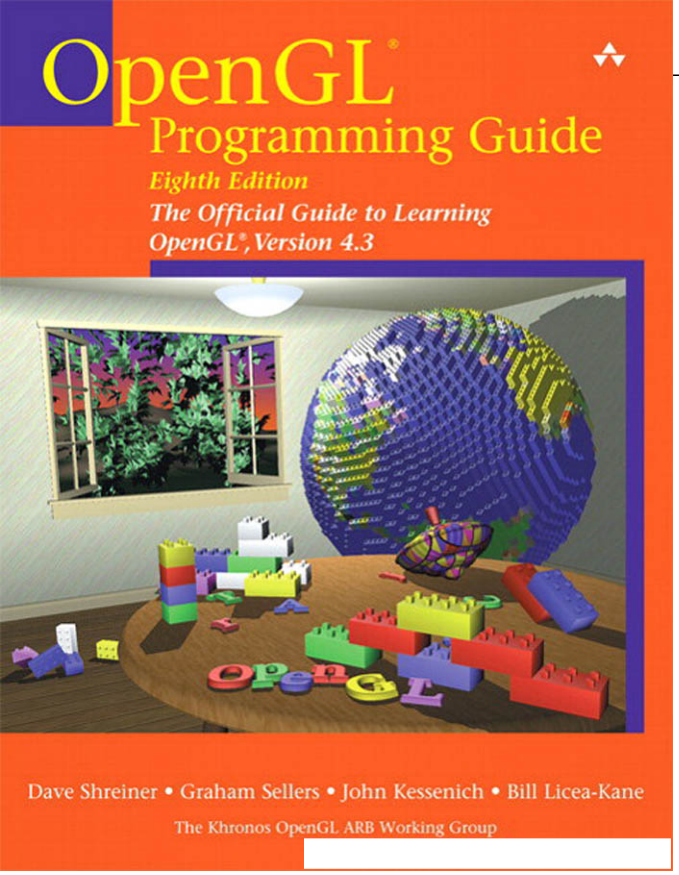
OpenGL®
Programming Guide
Eighth Edition
The Official Guide to Learning
OpenGL®, Version 4.3
OpenGL
Dave Shreiner • Graham Sellers • John Kessenich • Bill Licea-Kane
The Khronos OpenGL ARB Working Group

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OpenGL®
Programming Guide
Eighth Edition

The OpenGL graphics system is a software interface to graphics hardware. ("GL" stands for "Graphics Library.") It allows you to create interactive programs that produce color images of moving, three-dimensional objects. With OpenGL, you can control computer-graphics technology to produce realistic pictures, or ones that depart from reality in imaginative ways.

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OpenGL® Programming Guide

Eighth Edition

The Official Guide to Learning OpenGL®, Version 4.3

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For my family—Vicki, Bonnie, Bob, Cookie, Goatee, Phantom, Squiggles, Tuxedo, and Toby.
—DRS

To Emily: welcome, we're so glad you're here! Chris and J.: you still rock!
—GJAS

In memory of Phil Karlton, Celeste Fowler, Joan Eslinger, and Ben Cheatham.

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